REMARKS

This application has been carefully reviewed in light of the Office Action dated October 13, 2010. Claims 1, 6 and 11 are the independent claims and have been amended. Dependent claim 7 has been amended, support for amended claim 7 can be found in the specification at least on page 6 lines 23-31, and page 7 lines 24-29. New claim 16 has been added, with no new matter having been added to the application. In particular, support for new claim 7 can be found in the specification at least on page 7 lines 5-10. Reconsideration and withdrawal of all grounds of rejection, and allowance of the pending claims are respectfully requested in light of the amendments and remarks made herein.

Claims 1-4, 6-8, 10-13 and 15 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In response, claims 1, 6 and 12 have been amended to more particularly point out the subject matter of the invention and remove the antecedent basis issue from the claims. Accordingly, applicants respectfully submit that claims 1-4, 6-8, 10-13 and 15 now fully comply with 35 U.S.C 112, second paragraph.

Claims 1-4, 6-8, 10-13 and 15 stand rejected under 35 USC 102(a) as being anticipated by Puri et al. (NPL Forward Error…Multicast). Applicants respectfully disagree. Claim 1 recites the limitations of "wherein the plurality of equal priority partitions is comprised of partitions generated from the base and enhancement layer bitstreams and a forward error correction (FEC) code according to predetermined criteria and *allowing a fractional number of descriptions*." Applicants can find nothing in Puri that teaches the above limitations, as further noted below.

Moreover, claim 1 recites the step of converting the base layer bitstream and the enhancement layer bitstream into *a plurality of equal priority descriptions*. For example, the application description explains how one description is made of some equal priority partitions p0….Pi. These equal-priority partitions can be generated easily by alternatively skipping the bit plane for certain blocks with the partitions being orthogonal to each other and having equal priority (see description, page 7 lines 5-10).

The Final Office Action indicates that the limitation of "wherein the plurality of equal priority partitions is comprised of partitions generated from the base and enhancement layer bitstreams and a forward error correction (FEC) code according to predetermined criteria" is shown in Puri in Figs. 1-3. Applicants respectfully disagree. Fig. 1 is a block diagram of the end-to-end video transmission system (that includes a MD-PEC Transcoder). Fig. 2 simply shows a progressive bitstream from the source coder partitioned into *N* layers or quality levels, and Fig. 3 simply shows N-description generalized MD codes using forward error correction codes.

Moreover, Puri describes that a layer is split into equal parts: "we split the ith layer into i equal parts, and apply the (N, i, N- i + 1)" (see description, page 748, left-hand col. lines 13-15). This means that the ith layer must contain a number of source symbols that is *an integral multiple of i*, which is contrary to what is claimed in claim 1. Importantly, as one skilled in the art recognizes, it follows from "converting the base layer bitstream and the

enhancement layer bitstream into a plurality of equal priority descriptions" that "fractional number of descriptions" are allowed.

Additionally, from the claim 1 feature of converting the base layer bitstream and the enhancement layer bitstream into a plurality of equal priority descriptions, it so follows that the reconstructed video is drift-free as long as the decoder always receives at least one arbitrary description (see description, page 6 lines 23-31, and page 7 lines 24-29).

In Puri, the method to encode is MD-FEC. With MD-FEC, loss of one or more descriptions may introduce temporal prediction drift due to the mismatch of the references used during encoding and decoding. See description, page 2 lines 24-30:

> While the MD-FEC provides a nice framework for transcoding scalable bit streams to multiple descriptions, many of the current video-coding standards employ the motion-compensated prediction and DCT coding (MC-DCT) due to their simplicity as well as efficiency. However, unlike in the image-coding or video-coding cases, the extension of the MD-FEC for the MC-DCT is difficult because the loss of one or more descriptions may introduce temporal prediction drift due to the mismatch of the references used during encoding and decoding.

However, as mentioned previously, claim 1 uses a multi-layered scalable-coding scheme to achieve drift-free fractional MD channel coding.

The Final Office Action further indicates that the limitations of " allowing a fractional number of descriptions" is shown in Puri in "fraction of packets" in column 1, page 746. Applicants respectfully disagree.

Column 1, page 746 states in part (emphasis added):

> The ***essential idea is to generate multiple independent descriptions (N in number***) of the source such that each description independently describes the source with a certain desired fidelity; when more than one description is available, they can be synergistically combined to enhance the quality. Note that while the MR bitstream is sensitive to the *position* of losses in the bitstream (e.g., a loss early on in the bitstream can render the rest of the bitstream useless to the decoder) the MD stream is insensitive to them and thus has ***the desired feature that the delivered quality is dependent only on the fraction of packets delivered reliably***. While most of the initial work in this area has focused on the special case of ***N = 2*** **descriptions** [6,30], there has been recent interest in the TV > 2 case also [8,16,30,20].

Thus, Puri teaches an integer number of descriptions, e.g. N=2. And the fraction of packet relates to the number of packet received and not to allowing a fractional number of descriptions as claimed.

Having shown that Puri fails to disclose each and every element claimed, applicant submits that the reason for the examiner's rejection of claim 1 has been overcome and can no longer be sustained. Applicant respectfully requests reconsideration, withdrawal of the rejection and allowance of the claim. Claims 6 and 11 contain similar features to those of claim 1 and are deemed patentable for at least the same reasons.

With regard to claims 2-4, 7-8, 10, 12-13 and 15-16, these claims depend from one of the independent claims discussed above, which have been shown to be allowable in view of the cited reference. Accordingly, each of claims 2-4, 7-8, 10, 12-13 and 15 are also allowable by virtue of its dependence from an allowable base claim.

Also, with respect to new claim 16, applicants can find nothing in Puri that teaches "wherein the equal-priority partitions are generated by alternatively skipping the bit plane for certain blocks with the partitions being orthogonal to each other and having equal priority."

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. Entry of this amendment and a Notice of Allowance is respectfully requested.

Respectfully submitted,

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